



**Clogging indicators are devices that check the life time of the filter elements. They measure the pressure drop through the filter element directly connected to the filter housing.**

**These devices trip when the clogging of the filter element causes a pressure drop increasing across the filter element.**

**Filter elements are efficient only if their Dirt Holding Capacity is fully exploited.**

**This is achieved by using filter housings equipped with clogging indicators.**

**The indicator is set to alarm before the element becomes fully clogged.**

**MP Filtri can supply indicators of the following designs:**

- Vacuum switches and gauges**
- Pressure switches and gauges**
- Differential pressure indicators**

**These type of devices can be provided with a visual, electrical or both signals.**

**The electronic differential pressure clogging indicator is also available.**

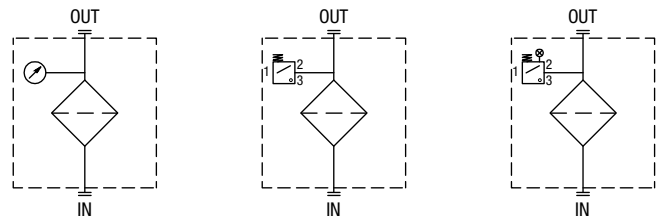
**It provides both analogical 4-20 mA output and digital warning (75% of clogging) and alarm (clogging) outputs.**

# Clogging indicators

## Suitable indicator types

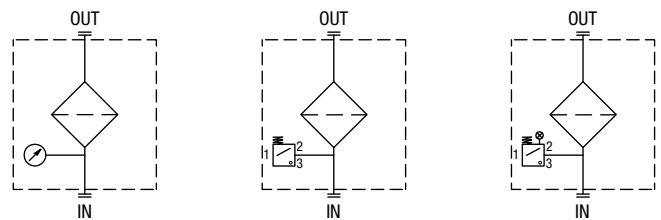
### VACUUM INDICATORS

Vacuum indicators are used on the Suction line to check the efficiency of the filter element.  
They measure the pressure downstream of the filter element.  
Standard items are produced with R 1/4" EN 10226 connection.  
Available products with R 1/8" EN 10226 to be fitted on MPS series.



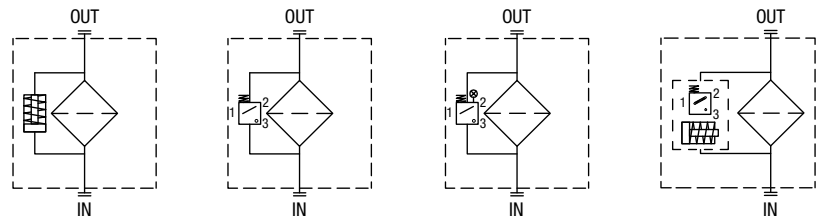
### BAROMETRIC INDICATORS

Pressure indicators are used on the Return line to check the efficiency of the filter element.  
They measure the pressure upstream of the filter element.  
Standard items are produced with R 1/8" EN 10226 connection.



### DIFFERENTIAL INDICATORS

Differential indicators are used on the Pressure line to check the efficiency of the filter element.  
They measure the pressure upstream and downstream of the filter element (differential pressure).  
Standard items are produced with special connection G 1/2" size.  
Also available in Stainless Steel models.



## QUICK REFERENCE GUIDE

## CLOGGING INDICATORS

Filter family	Filter series	Visual indicators	Electrical indicators	Electrical / Visual indicators
SUCTION FILTERS	<b>ELIXIR®</b> SFEX060-080-110-160 With bypass valve 0.3 bar	VVB16P01 VVS16P01	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01
	SF2 250 - 350 SF2 500 - 501 - 503 - 504 - 505 SF2 510 - 535 - 540	VVA16P01 VVR16P01	VEA21AA50P01	VLA21AA51P01 VLA21AA52P01 VLA21AA53P01 VLA21AA71P01

Filter family	Filter series	Visual indicators	Electrical indicators	Electrical / Visual indicators		
RETURN FILTERS	With bypass 1.75 bar	<b>ELIXIR®</b> RFEX060-080-110-160	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01	
	Without bypass	<b>ELIXIR®</b> RFEX060-080-110-160	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01	
	With bypass 1.75 bar	MDH 250	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01 DVS12HP01	BEA15HA50P01 BEM15HA41P01 DES12HA10P01 DES12HA30P01 DES12HA80P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01	
	With bypass 3 bar	MDH 250	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01 DVS25HP01	BEA20HA50P01 BEM20HA41P01 DES25HA10P01 DES25HA30P01 DES25HA80P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01	
	With bypass 1.75 bar	MPFX MPTX MPF MPT MPH	BVA14P01 BVR14P01 BVP15HP01 BVQ15HP01	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01	
	With bypass 3 bar	MPFX MPTX MPF MPT	BVA25P01 BVR25P01 BVP20HP01 BVQ20HP01	BEA20HA50P01 BEM20HA41P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01	
	With bypass 2.5 bar	MPH				
	With bypass 4.5 bar	MPLX	DVA20xP01	DEA20xA50P01 DEM20XX10P01 DEM20XX20P01 DEM20XX30P01 DEM20XX35P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01	
	With bypass 2.4 bar	FRI	DVM20xP01	DTA20xF70P01	DLE20xA50P01 DLE20xF50P01	
	RETURN / SUCTION FILTERS	MRSX 116 - 165 - 166 Suction line	VVB16P01 VVS16P01		VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01
		With bypass valve 2.5 bar		BVA14P01 BVA25P01 BVR14P01 BVR25P01 BVP15HP01 BVP20HP01 BVQ15HP01 BVQ20HP01	BEA15HA50P01 BEA20HA50P01 BEM15HA41P01 BEM20HA41P01 BET20HF10P01 BET20HF30P01 BET20HF50P01 BET25HF10P01 BET25HF30P01 BET25HF50P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01 BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01
		MRSX 116 - 165 - 166 Return line				
With bypass valve 2.5 bar		LMP 124 MULTIPORT	BVA14P01 BVA25P01 BVR14P01 BVR25P01 BVP15HP01 BVP20HP01 BVQ15HP01 BVQ20HP01 DVA20xP01 DVM20xP01	BEA15HA50P01 BEA20HA50P01 BEM15HA41P01 BEM20HA41P01 BET20HF10P01 BET20HF30P01 BET20HF50P01 BET25HF10P01 BET25HF30P01 BET25HF50P01 DEA20xA50P01 DEM20XX10P01 DEM20XX20P01 DEM20XX30P01 DEM20XX35P01 DTA20xF70P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01 BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01 DLA20xA51P01 DLA20xA52P01 DLA20xA71P01 DLE20xA50P01 DLE20xF50P01	

Filter family	Filter series	Visual indicators	Electrical indicators	Electrical / Visual indicators	
SPIN-ON FILTERS	Inline / Suction line with bypass valve 0.3 bar	MPS 050 - 070	DVA12xP01	DEA12xA50P01	DLA12xA51P01 DLA12xA52P01 DLA12xA71P01
		MPS 100 - 150	DVM12xP01	DEM12XX10P01 DEM12XX20P01	DLE12xA50P01 DLE12xF50P01
		MPS 200 - 250	VVB16P01	DEM12XX30P01 DEM12XX35P01	
		MPS 300 - 350	VVS16P01	VEB21AA50P01	VLB21AA51P01 VLB21AA52P01 VLB21AA53P01 VLB21AA71P01
	Inline / Return line with bypass valve 1.75 bar	MPS 051 - 071	DVA12xP01	DEA12xA50P01	DLA12xA51P01 DLA12xA52P01 DLA12xA71P01
		MPS 100 - 150	DVM12xP01	DEM12XX10P01 DEM12XX20P01	
		MPS 101 - 151	BVA14P01	DEM12XX30P01 DEM12XX35P01	DLE12xA50P01 DLE12xF50P01
		MPS 200 - 250	BVR14P01		
		MPS 300 - 301 MPS 350 - 351	BVP15HP01 BVQ15HP01	BEA15HA50P01 BEM15HA41P01	BLA15HA51P01 BLA15HA52P01 BLA15HA53P01 BLA15HA71P01
Without bypass valve U type	MPS 050 - 070	DVA20xP01	DEA20xA50P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01	
	MPS 100 - 150	DVM20xP01	DEM20XX10P01 DEM20XX20P01		
	MPS 200 - 250	BVA25P01	DEM20XX30P01 DEM20XX35P01	DLE20xA50P01 DLE20xF50P01	
	MPS 300 - 350	BVR25P01			
Without bypass valve P type	MPS 051 - 071	BVP20HP01	BEA20HA50P01	BLA20HA51P01 BLA20HA52P01 BLA20HA53P01 BLA20HA71P01	
	MPS 101 - 151 MPS 301 - 351	BVQ20HP01	BEM20HA41P01		
LOW & MEDIUM PRESSURE FILTERS	ELIXIR® LFEX060-080-110-160		DVS25HP01	DES25HA10P01 DES25HA30P01 DES25HA80P01	
	With bypass valve 3.5 bar	LMP 110 - 112 - 116 - 118 - 119 MULTIPOINT		DEA20xA50P01	DLA20xA51P01 DLA20xA52P01 DLA20xA71P01
		LMP 120 - 122 - 123 MULTIPOINT			
		LMP 210 - 211 - LDP		DEM20XX10P01 DEM20XX20P01	
		LMP 400 - 401 & 430 - 431	DVA20xP01 DVM20xP01	DEM20XX30P01 DEM20XX35P01	DLE20xA50P01 DLE20xF50P01
		LMP 900 - 901 LMP 902 - 903			
	LMP 950 - 951 LMP 952 - 953 - 954		DTA20xF70P01		
	LMD 211 - 400 - 401 - 431 - 951 - LDD				
	ELIXIR® LFEX060-080-110-160		DVS40HP01	DES40HA10P01 DES40HA30P01 DES40HA80P01	
	Without bypass valve	LMP 110 - 112 - 116 - 118 - 119 MULTIPOINT		DEA50xA50P01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01
LMP 120 - 122 - 123 MULTIPOINT					
LMP 210 - 211 - LDP			DEM50XX10P01 DEM50XX20P01		
LMP 400 - 401 & 430 - 431		DVA50xP01 DVM50xP01	DEM50XX30P01 DEM50XX35P01	DLE50xA50P01 DLE50xF50P01	
LMP 900 - 901 LMP 902 - 903 LMP 950 - 951 LMP 952 - 953 - 954			DTA50xF70P01		
LMD 211 - 400 - 401 - 431 - 951 - LDD					

Filter family	Filter series	Visual indicators	Electrical indicators	Electrical / Visual indicators	
<b>HIGH PRESSURE FILTERS</b>	With bypass valve 6 bar	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 351 - 500 FMMX 050 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DVA50xP01 DVM50xP01	DEA50xA50P01 DEM50XX10P01 DEM50XX20P01 DEM50XX30P01 DEM50XX35P01 DTA50xF70P01 DEA70xA50P01 DEA95xA50P01	DLA50xA51P01 DLA50xA52P01 DLA50xA71P01 DLE50xA50P01 DLE50xF50P01
	Without bypass valve	FMP 039 - 065 - 135 - 320 FHP 010 - 011 - 065 - 135 - 350 - 351 - 500 FMMX 050 FMM 050 - 150 FHA 051 FHM 006 - 007 - 010 - 050 - 065 - 135 - 320 - 500 FHB 050 - 135 - 320 FHF 325 FHD 021 - 051 - 326 - 333	DVA70xP01 DVA95xP01 DVM70xP01 DVM95xP01	DEM70XX10P01 DEM70XX20P01 DEM70XX30P01 DEM70XX35P01 DEM95XX10P01 DEM95XX20P01 DEM95XX30P01 DEM95XX35P01 DTA70xF70P01 DTA95xF70P01	DLA70xA51P01 DLA70xA52P01 DLA70xA71P01 DLA95xA51P01 DLA95xA52P01 DLA95xA71P01 DLE70xA50P01 DLE70xF50P01 DLE95xA50P01 DLE95xF50P01
<b>STAINLESS STEEL HIGH PRESSURE FILTERS</b>	With bypass valve 6 bar	FZH 012 - 040	DVZ50xP01	DEZ50xA50P01	
	Without bypass valve	FZH 012 - 040	DVZ70xP01 DVZ95xP01	DEZ70xA50P01 DEZ95xA50P01	
	With bypass valve 6 bar	FZP 039 - 136 FZB 039 FZM 039 FZD 051	DVX50xP01 DVG50xP01	DEX50xA50P01	DLX50xA51P01 DLX50xA52P01
	Without bypass valve	FZP 039 - 136 FZB 039 FZM 039 FZD 010 - 021 - 051	DVX70xP01 DVX95xP01 DVG70xP01 DVG95xP01	DEX70xA50P01 DEX95xA50P01	DLX70xA51P01 DLX70xA52P01 DLX95xA51P01 DLX95xA52P01

Filter family	Filter series	Visual indicators	Electrical indicators	Electrical / Visual indicators
FILTERS FOR POTENTIALLY EXPLOSIVE ATMOSPHERE	With bypass valve 6 bar	FMMX 50 FMM 050 -150	DVA50xP01 DVM50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01
	Without bypass valve	FMMX 50 FMM 050 -150	DVA70xP01 DVA95xP01 DVM70xP01 DVM95xP01	DEH70xA48P01 DEH70xA49P01 DEH70xA70P01 DEH95xA48P01 DEH95xA49P01 DEH95xA70P01
	With bypass valve 6 bar	FZP 039 - 136	DVX50xP01 DVM50xP01	DEH50xA48P01 DEH50xA49P01 DEH50xA70P01 DEX50xA50P01 DEZ50xA50P01
	Without bypass valve	FZP 039 - 136	DVX70xP01 DVM95xP01 DVM70xP01 DVM95xP01	DEH70xA48P01 DEH70xA49P01 DEH70xA70P01 DEH95xA48P01 DEH95xA49P01 DEH95xA70P01 DEX70xA50P01 DEZ70xA50P01 DEZ95xA50P01
	With bypass valve 6 bar	FZH 012 - 040	DVZ50xP01	
	Without bypass valve	FZH 012 - 040	DVZ70xP01 DVM95xP01	

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